

FOLD SIDES OVER AND THEN FOLD BOTTOM UP  
MOISTEN FLAP WELL AND APPLY PRESSURE TO SEAL  
NO OTHER ENVELOPE SHOULD BE USED

Dear Rosalind :

It was very generous of you to offer to send me a copy of the numerical entries from which your TMV cylindrical Patterson map was drawn. On reflexion, I would like very much to have this, if it is not troubling you too much. [Please say if  $E(000)$  is zero or? and the scale of the entries, even if only roughly known] . I have been wondering whether you find any confirmation of the idea of Bernal and Fan. that there is two-dimensional periodicity perpendicular to the  $z$ -axis, giving a hexagonal cell  $a = \dots$ , or any other two-dimensional cell and whether, in particular, you agree with them in thinking that the strong  $11A$  reflexions on  $l=2$  are trigonally arranged about the axis? I ask this last question in particular because of the overall impression one gets from your figure 1 map in Nature 26Feb55 of the importance of the  $10-11A$  reflexions on many different layer lines. Any information you feel willing to give me as to the presumed positions in three-dimensional space of such reflexions would interest me greatly.

I am very much interested in and also full of admiration for your remarkable work on NaDNA, as I mentioned in my last letter. The idea of having been able to get a three-dimensional Patterson map is extremely impressive. I studied the two sections in Nature 172,157,1953 with great interest and feel very curious as to what three-dimensional situation turns out to be responsible for the various remarkable features of the cylindrical Patterson, particularly of those features at  $z$  about  $7A$  and  $\rho = 8-14A$  and  $z$  about  $2\frac{1}{2}A$  and  $\rho$  about  $5\frac{1}{2}A$ .

I do wish it were possible to discuss all these aspects of your beautiful work with you in conversation instead of in letters. Cant you spend some time with us at Woods Hole this summer, as my guest? We could, I think, give you a good time- and I hope no hurricane!

With best regards

Yours

*Donna W.*

May 7/55

Please excuse mess on other side. I only found I had already addressed this to Mr. Singer when I had written all this letter to you.